

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims

1. (Amended) A customer self-checkout system for processing items for purchase, comprising:
 - a checkout station configured for self-checkout by customers of items for purchase;
 - a plurality of supervisory terminals comprising stored program instructions that configure the supervisory terminals configured to conduct supervisory activities administering operation of the checkout station; and
 - a controller operatively coupling the plurality of supervisory terminals to the checkout station, wherein said controller is configured comprises stored program instructions that configure the controller to enable administration of the checkout station by multiple ones of the supervisory terminals.
2. (Original) The system of claim 1, wherein:
 - the checkout station is one of a plurality of checkout stations;
 - the controller is one of a plurality of controllers;
 - each of the plurality of controllers is associated with a corresponding one of the plurality of checkout stations; and
 - each of the controllers is operatively coupled to the plurality of supervisory terminals.
3. (Original) The system of claim 1, wherein:

the checkout station is one of a plurality of checkout stations;
the controller is operatively coupled to each of the plurality of checkout stations; and
the controller is configured to administer control of the plurality of checkout stations by
multiple ones of the plurality of supervisory terminals.

4. (Original) The system of claim 1, wherein:

a first one of the supervisory terminals is operatively coupled to the controller by a wireless
data network; and
the supervisory terminal and the checkout station are operatively coupled to each other by a
wired data network.

5. (Original) The system of claim 4, wherein a second one of the supervisory terminals is
operatively coupled to the controller by a wired data network.

6. (Original) The system of claim 4, wherein the first supervisory terminal is a battery operated
mobile supervisory device.

7. (Amended) The system of claim 6, wherein the first supervisory terminal is pocketable pager-size
supervisory device.

8. (Amended) The system of claim 7, wherein the pocketable pager-size supervisory device
comprises a vibrating indication device.

9. (Original) The system of claim 1, wherein a first one of the supervisory terminals comprises a card reader configured to clear a weight violation at the checkout station in response to a reading of an authorization card.

10. (Original) The system of claim 9, wherein the authorization card comprises a transponder card.

11. (Original) The system of claim 9, wherein:

the checkout station is one of a plurality of checkout stations; and
the first supervisory terminal is dedicated to conducting supervisory activities over a first one of the plurality of checkout stations.

12. (Original) The system of claim 1, wherein:

the supervisory activities comprise a plurality of supervisory functions that can be performed to administer operation of the checkout station;
a first one of the supervisory terminals can conduct supervisory activities consisting of a first subset of the supervisory functions;
a second one of the supervisory terminals can conduct supervisory activities consisting of a second subset of the supervisory functions; and,
the first and second subsets of the supervisory functions are different.

13. (Original) The system of claim 12, wherein:

at least one of the plurality of supervisory functions is common to the first and second subsets of the supervisory activities.

14 – 21 (Previously Withdrawn)

Remarks

The undersigned's Remarks are preceded by related comments of the Examiner, presented in small bold-faced type.

The Examiner's rejections are respectfully traversed. As further addressed below, applicant respectfully submits that the Examiner has improperly failed to give weight to language that the Examiner has deemed "functional" and, owing to this error, has not properly considered the elements of claims. With regard to considerations of "functional" language, the MPEP makes clear that such language "must be evaluated" (MPEP 2173.05(g)) and, accordingly, must be given weight.

See, e.g., MPEP § 2173.05(g) (emphasis added)

2173.05(g) Functional Limitations

A functional limitation is an attempt to define something by what it does, rather than by what it is (e.g., as evidenced by its specific structure or specific ingredients). There is nothing inherently wrong with defining some part of an invention in functional terms. Functional language does not, in and of itself, render a claim improper. *In re Swinehart*, 439 F.2d 210, 169 USPQ 226 (CCPA 1971).

A functional limitation must be evaluated and considered, just like any other limitation of the claim, for what it fairly conveys to a person of ordinary skill in the pertinent art in the context in which it is used. A functional limitation is often used in association with an element, ingredient, or step of a process to define a particular capability or purpose that is served by the recited element, ingredient or step. Whether or not the functional limitation complies with 35 U.S.C. 112, second paragraph, is a different issue from whether the limitation is properly supported under 35 U.S.C. 112, first paragraph, or is distinguished over the prior art. A few examples are set forth below to illustrate situations where the issue of whether a functional limitation complies with 35 U.S.C. 112, second paragraph, was considered.

It was held that the limitation used to define a radical on a chemical compound as "incapable of forming a dye with said oxidizing developing agent" although functional, was perfectly acceptable because it set definite boundaries on the patent protection sought. *In re Barr*, 444 F.2d 588, 170 USPQ 33 (CCPA 1971).

In a claim that was directed to a kit of component parts capable of being assembled, the Court held that limitations such as “members adapted to be positioned” and “portions . . . being resiliently dilatable whereby said housing may be slidably positioned” serve to precisely define present structural attributes of interrelated component parts of the claimed assembly. *In re Venezia*, 530 F.2d 956, 189 USPQ 149 (CCPA 1976).

See also, MPEP § 2173.01 (emphasis added)

2173.01 Claim Terminology [R-2]

A fundamental principle contained in 35 U.S.C. 112, second paragraph is that applicants are their own lexicographers. They can define in the claims what they regard as their invention essentially in whatever terms they choose so long as **>any special meaning assigned to a term is clearly set forth in the specification. See MPEP § 2111.01.< Applicant may use functional language, alternative expressions, negative limitations, or any style of expression or format of claim which makes clear the boundaries of the subject matter for which protection is sought. As noted by the court in *In re Swinehart*, 439 F.2d 210, 160 USPQ 226 (CCPA 1971), a claim may not be rejected solely because of the type of language used to define the subject matter for which patent protection is sought.

Thus, as made clear by the above-quoted sections of the MPEP, functional language “must be evaluated and considered, just like any other limitation of the claim.” Accordingly, that the Examiner did not give patentable weight to certain elements of the recited claim because, in the Examiner’s view, such limitations were “functional,” is improper under the examining procedures set forth in the MPEP. It is respectfully requested that the Examiner withdraw the Final Office action and either allow the claims or issue a new office action giving full consideration to all claim elements.

In any event, the undersigned respectfully disagrees with the Examiner’s assertion that the language is “functional” because the relevant claim limitations, as a whole, recite sufficient structure, material, or acts which would preclude application of 35 USC 112 ¶ 6. See *Watts v. XL Systems, Inc.*, 232 F.3d 877, 56 USPQ2d 1836 (Fed. Cir. 2000). However, to remove this issue from consideration, the undersigned has further clarified the structural nature of relevant

claim limitations by replacing the phrase "configured" in the limitations at issue with "comprising stored program instructions that configure" (or substantially similar language). The recitation of "stored program instructions" thus further clarifies the structural limitations of the claims.

FINAL

Applicant's arguments filed 5/9/05 have been fully considered but they are not persuasive. Applicant's argues that the elements of claim 1 have not been set forth in the combination of Humble and Ito. However, the examiner does not see it this way, In fact this is how the examiner sees claim 1:

- a. a check out station,
- b. a plurality of supervisory terminals; and
- c .a controller operatively coupling the plurality of supervisory terminals to the checkout station.

Every other recitation following the words "configured " is read as functional language and can be met by a combination which is capable of being used in the functional manner which is recited in these recitations.

Thus, the question of obviousness and motivation legally must be taken from a standpoint of one of ordinary skill in the art teaching combining Humble and Ito to end up with elements a, b, and c. The examiner thinks so. Humble clearly discloses a self check out station and a supervisory terminal 22/28. Ito discloses a controller 30 which operatively couples the supervisory terminals 32,32 to the controlled devices 33,33 via signal line Ls which addresses the supervisory terminals to direct a function to the controlled devices 33,33. Contrary to the applicant's view, the statement in col. 2 in Humble indicates a need for more supervisory terminals when more than three self check out stations are present. This is taken as a clear motivation for providing plural supervisory stations, especially since fig. 1 of Humble shows an additional two such stations, meaning that at least another supervisory station terminal 22/28 must exist. Given that Humble at least suggests plural supervisory terminals, Ito is an obvious conclusion to Humble given that with plural supervisory terminals, an obvious need is to connect them together via a central controller to effect the ultimate control of the controlled devices, e.g. the self check out stations. But, Applicant argues that the self checks outs and luminaries are not analogous because

Ito's luminaries 33 are understood as being little more than light bulbs and, accordingly there is no suggestion that they can generate or respond to supervisory events or instructions or otherwise have a state requiring supervisory activities" as required by the claims of the present application. Accordingly, Ito's control terminal 32 simply does not provide for supervisory activities administering operation of the checkout station" as recited by claim 1 [emphasis added]

The italicized parts of the above passage illustrate arguments directed to the functional aspects of claim 1 which have not been given weight, and hence are not convincing. That being said, the luminaries do have a state requiring supervisory control in that there they by themselves cannot determine brightness levels or react to timing sequences much in the same way a self check out station cannot on its own determine whether a customer is on a preferred customer database and entitled to discounts.

For the reasons set forth above and in the applicant's response to the prior office action (such reasons being repeated below), the undersigned respectfully disagrees with the Examiner's position and traverses the Examiner's rejections.

It is further noted that, in responding to the previously-presented argument that Ito is not analogous prior art, the Examiner has merely asserted, without providing any objective evidence whatsoever, that one of skill in the art would be motivated to combine Humble and Ito. Here, despite the undersigned having pointed out clear guidance from the MPEP that the proffered combination is improper, when requested to provide objective evidence of a motivation to combine the references, the Examiner merely asserts that "The examiner thinks so." That the Examiner "thinks so" is merely the Examiner's subjective opinion, is not an objective teaching to combine, and is clearly improper. It is respectfully requested that the Examiner provide objective evidence of a teaching to combine or withdraw the rejection in light of Ito combined with Humble.

Further clarification of this point is presented below and in the Response to the prior office action. It is respectfully requested that, if the Examiner maintains it is proper to combine Humble and Ito, the Examiner address each element of the undersigned's argument that such a combination is improper. This is the Examiner's burden as set forth in MPEP § 707.07.

The 112 second rejection stands because a pager can have many varying sizes too great to contemplate and be definite. The recitation of a "pocket pager" would clear this problem up.

In accordance with the Examiner's suggestion "pocketable" has been added to claims 7 and 8. Note that the term "pocketable" has been used rather than "pocket" to prevent confusion that may result were the term "pocket" interpreted to exclude, e.g., pagers designed for wear on a belt clip or other non-pocketed position. Nevertheless, it is believed that the term "pocketable" reasonably addresses the Examiner's concerns regarding the definiteness of the term "pager-size". Accordingly, it is respectfully requested that the Examiner withdraw the 112 ¶ 2 rejection.

The subsequent section of this Response addresses portions of the current Office Action that are substantially identical to those raised in the previous (1/24/2005) Office Action. It is respectfully submitted that, because the Office did not properly consider allegedly "functional" language in the claims, the Office has not properly considered all limitations of the claims as is required by the patent examining standards set forth in the MPEP. Accordingly, the following arguments remain pertinent and it is respectfully requested that the Office fully and completely address each argument presented as is required under MPEP § 707.07 or withdraw all rejections and allow the claims. Furthermore, numerous arguments were presented in the prior Response which were not addressed by the Office (regardless of the "functional" issue), and it is respectfully requested that each such argument be fully responded to as is required under MPEP § 707.07 which states that "Where the applicant traverses any rejection, the examiner should, if he or she repeats the rejection, take note of the applicant's arguments and answer the substance of it." MPEP 707.07(f). It is respectfully submitted that failure to fully address each argument

presented is improper because it leaves the Applicant without any understanding as to why the previously presented arguments were not sufficient to distinguish over the cited prior art; in doing so, the present Office Action does not offer the Applicant or the undersigned enough information to ascertain why claims were rejected or why arguments presented were not persuasive, as is the intent of MPEP 707.07(f).

It is respectfully requested that the Examiner either withdraw rejections of the claims and allow the claims in light of the Applicant's remarks, above, and arguments as repeated below, or withdraw the Present Office Action and issue a new Office Action fully addressing the substance of the arguments presented in the Applicant's responses..

Claim Rejections - 35 USC § 103

Claims 1-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Humble'136 in view of Ito et al.

Humble discloses a checkout station configured for self-checkout by customers of items for purchase (50); a supervisory terminal is configured to conduct supervisory activities to administer the operation of the checkout station 28, e.g. missing codes inputted into system is read as supervisory activity); However, Humble fails to teach a controller operatively coupling a plurality of supervisory terminals to the checkout station, wherein said controller is configured to enable administration of the checkout station by multiple ones of the supervisory terminals.

But, Ito et al. do disclose a controller (30) operatively coupling a plurality of supervisory terminals (32, 32) to a controlled device (fig. 12 items 33), wherein said controller is configured to enable administration of the controlled devices by multiple ones of the supervisory terminals.

As further explained below, the Examiner's rejection is respectfully traversed. Neither Humble nor Ito, alone or in combination, disclose or suggest a customer self-checkout system for processing items for purchase, that includes a checkout station configured for self-checkout by customers of items for purchase; a plurality of supervisory terminals configured to conduct supervisory activities administering operation of the checkout station; and a controller

operatively coupling the plurality of supervisory terminals to the checkout station, wherein said controller is configured to enable administration of the checkout station by multiple ones of the supervisory terminals.

Ito Is Not Analogous Prior Art and Is Not A Proper Reference On Which To Base a § 103 Rejection

Generally speaking, Humble, like the present application, relates to the field of self-checkout systems. Ito, on the other hand, relates to an entirely different field – i.e., the control of illumination systems. These two fields bear no reasonable relationship to each other and are not analogous. It is well settled that to rely on a reference under 35 U.S.C. § 103, it must be analogous prior art. MPEP § 2141.01(a) makes this clear and states, *inter alia*:

"In order to rely on a reference as a basis for rejection of an applicant's invention, the reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the inventor was concerned." *In re Oetiker*, 977 F.2d 1443, 1446, 24 USPQ2d 1443, 1445 (Fed. Cir. 1992). See also *In re Deminski*, 796 F.2d 436, 230 USPQ 313 (Fed. Cir. 1986); *In re Clay*, 966 F.2d 656, 659, 23 USPQ2d 1058, 1060-61 (Fed. Cir. 1992) ("A reference is reasonably pertinent if, even though it may be in a different field from that of the inventor's endeavor, it is one which, because of the matter with which it deals, logically would have commended itself to an inventor's attention in considering his problem."); * *Wang Laboratories Inc. v. Toshiba Corp.*, 993 F.2d 858, 26 USPQ2d 1767 (Fed. Cir. 1993); and *State Contracting & Eng'g Corp. v. Condotte America, Inc.*, 346 F.3d 1057, 1069, 68 USPQ2d 1481, 1490 (Fed. Cir. 2003) (where the general scope of a reference is outside the pertinent field of endeavor, the reference may be considered analogous art if subject matter disclosed therein is relevant to the particular problem with which the inventor is involved)<.

MPEP 2141.01(a) makes clear that the Office, in combining the Ito and Humble references, has the burden of showing that the combined references are analogous prior art. The Office has not met this burden as the Office has provided no objective evidence that one of skill in the art of designing point of sale self-checkout systems would consult references in the field of lighting control in order to designs a sophisticated computer control systems and software to

operate a self-checkout system. Indeed, it is respectfully submitted that the Ito reference would not have “commended itself to an inventor’s attention in considering [the problem of control of a self-checkout system]” as is required by MPEP § 2141.01(a). Further note is made of the fact that the Humble reference and Ito reference bear different U.S. and international classifications and are located in different Fields of Search. MPEP 2141.01(a) makes clear that the fact that the references bear different classifications is evidence that the references are nonanalogous.

In summary, it is respectfully submitted that the Office has not met its burden of showing that the combined references are analogous prior art and, further, it is submitted that self-checkout systems (Humble) and lighting control (Ito) are simply not analogous.

For at least the foregoing reasons, the combination of Ito and Humble is improper and it is respectfully requested that the rejection of claims in light of this combination be withdrawn and the claims allowed.

The Combination of Humble and Ito do not teach the Limitations of the Claims

Claim 1 recites a customer self-checkout system for processing items for purchase. The system includes a checkout station configured for self-checkout by customers of items for purchase; a plurality of supervisory terminals configured to conduct supervisory activities administering operation of the checkout station; and a controller operatively coupling the plurality of supervisory terminals to the checkout station, wherein said controller is configured to enable administration of the checkout station by multiple ones of the supervisory terminals.

Even if some teaching could be found to combine lighting control systems with self-checkout systems, the particular combination of Ito and Humble cited by the examiner still does not teach the combination of elements found in claim 1 and, accordingly, the rejection of claim 1

in light of Humble and Ito is improper. Claim 1 requires that there be a plurality of supervisory terminals configured to conduct supervisory activities administering operation of self-checkout stations and a controller operatively coupling the plurality of supervisory terminals to the checkout stations, wherein said controller is configured to enable administration of the checkout station by multiple ones of the supervisory terminals. In relying on the Ito reference, the Office has suggested that the luminaries (33) controlled by Ito's control terminal (32) are somehow analogous to the self-checkouts system referenced in the claims of the present application. This is not the case. Ito's luminaries 33 are understood as being little more than light bulbs and, accordingly there is no suggestion that they can generate or respond to supervisory events or instructions or otherwise have a state requiring "supervisory activities" as required by the claims of the present application. Accordingly, Ito's control terminal 32 simply does not provide for "supervisory activities administering operation of the checkout station" as recited by claim 1 and would not teach or suggest a supervisory terminal in accordance with the invention recited by the claims of the present application.

For at least the additional reasons cited above, the rejection of claim 1 under § 103 in light of Humble and Ito is not supported and it is respectfully requested that the rejection be withdrawn and the claims allowed.

It would appear obvious to modify the system in Humble to include the controller 30 and plural supervisory terminals of Ito et al. because the motivation for this is set forth in Mumble in col. 2 to prevent bottlenecking of the system and thus the plural supervisory system of Ito et al. would do exactly that by allowing the other stations 28 to pick up the load at a point where the one station worker 28 becomes bottlenecked.

With regard to the Examiner's citation to col. 2 of Humble and the issue of "bottlenecking" the undersigned assumes that Examiner's reference is more specifically

addressed to the bottlenecking issue discussed at col. 2, lines 42-45 (this appears to be the only direct reference to a “bottleneck” in column 2).

Contrary to the Office’s suggestion, column 2 of Humble does not provide a motivation to combine Humble with Ito to provide for the supervisory control system as recited in the claims of the present application. Indeed, the cited column appears to suggest an opposite approach – i.e., that there be a single supervisory terminal connected to multiple self-checkout systems. The cited section of Humble appears to suggest little more than that the number of self-checkout systems attached to the supervisory terminal should be limited (e.g., to three) to solve bottlenecking issues. It is respectfully suggested that this teaches away from or, at best, is irrelevant to the issue of coupling multiple supervisory terminals to self-checkout station. It is further submitted that the Office’s combination of Humble and Ito appears to be based on impermissible hindsight reasoning. The application of such hindsight reasoning when combining references is not permissible. See, generally, MPEP § 2142.

For at least the additional reason that the Office has not shown a proper motivation to combine Humble and Ito, it is respectfully requested that the rejection of claim 1 be withdraw.